



*SERVING PROGRESS*

# BESPOKE MINING EQUIPMENT CATALOGUE



[www.henconmining.com](http://www.henconmining.com)

# YOUR COMPLETE SOLUTIONS PARTNER



We are pleased to introduce our range of quality, trackless underground mining vehicles into the mining markets. These vehicles have been designed in partnership with Hencon Mining BV in the Netherlands.



**HENCON MINING BV**  
(THE NETHERLANDS)

Hencon Head Office where R&D and manufacturing takes place.

[info@hencon.com](mailto:info@hencon.com) // Tel: +31 315 68 39 41

## AFTER-SALES SERVICE AND SUPPORT

Hencon vehicles are available with an optional service contract to ensure hassle-free operations for our clients. All vehicles are equipped with an on-board monitoring system, allowing for real-time performance data availability, and fitted with an on-board camera system.

In contrast to our competitors, we offer exceptional availability, low running costs and a complete hydrostatic drive.

### Advantages of the Hydrostatic Drive System:

- Better fuel efficiency
- Low operating costs
- Smoother ride
- Easy running on inclined planes of up to 20°
- No gear shifting required
- No gearbox, drive shaft and torque converter used in vehicles



Due to a proven, robust design, Hencon mining vehicles have been performing very well in severe conditions at mines in, for example, the Arctic Circle. As such, it is no surprise that we've seen an unprecedented demand for our machines over the past years. These vehicles are now manufactured at three of our plants in South Africa, the Netherlands and Asia. After-sales service is supplied by our group's extensive international network.





## 1. TRANSVERS MODULAR

A multifunctional roll on/roll off vehicle with changeable cassettes for different purposes

### Features

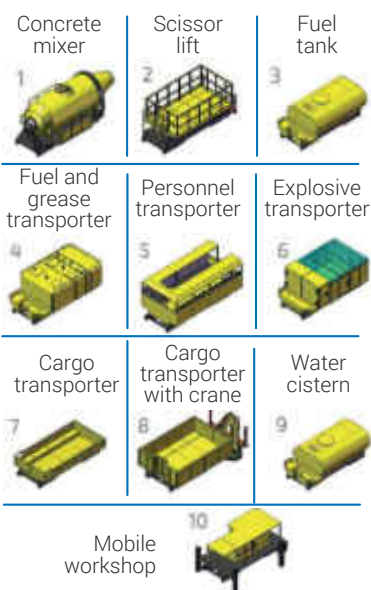
Tilting frame; raising and fixing devices; cassettes can be independently switched in 1-2 minutes

### Transmission

Dual speed hydrostatic drive with hydraulic diff-lock

Length	8 820mm	Max. speed	25km/h
Width	2 027mm	Gradient	15°
Height	2 298mm	Steering angle	50°
Turning radius, inner	3 200mm	Operating weight	11 400kg
Turning radius, outer	6 000mm	Capacity	12 000kg
Ground clearance	316mm	Tyres	12.00 x 20

### Changeable cassettes



## 2. TRANSVERS MIXER 4,5M<sup>3</sup> / 7M<sup>3</sup>

Mobile vehicle for transporting concrete in underground mines

### Features

Mixer drum with adjustable rotation speed and discharge; hydraulically driven high-pressure washer

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock

Length	8 831mm	Max. speed	25km/h
Width	2 000mm	Gradient	18°
Height	2 440mm	Steering angle	50°
Turning radius, inner	3 100mm	Operating weight	12 000kg
Turning radius, outer	5 900mm	Mixer's capacity	4,5m <sup>3</sup> / 7m <sup>3</sup>
Ground clearance	316mm	Tyres	12.00 x 20 / 14.00 x 24



## 3. TRANSVERS MIXER PUMP

Vehicle with concrete pump and concrete boom intended for transporting ready-mixed concrete

### Features

Concrete boom; remote control panel for concrete boom and concrete pump; mixer drum with adjustable rotation speed and discharge; hydraulically driven high-pressure washer

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock

Length	11 256mm	Gradient	18°
Width	2 340mm	Steering angle	50°
Height	2 700mm	Operating weight	18 500kg
Turning radius, inner	3 500mm	Load capacity	5m <sup>3</sup>
Turning radius, outer	6 950mm	Concrete boom reach	7 254mm
Ground clearance	430mm	Concrete max discharge height	8 500mm
Max. speed	18km/h	Concrete pump capacity	20m <sup>3</sup> /h
Tyres	14.00 x 24	Water tank capacity	490L

## 4. TRANSVERS TANKER

Vehicle for transporting POL materials

Fuel storage tank capacity: 4m<sup>3</sup>/7m<sup>3</sup>

Oil storage tank capacity: 2 x 0,4m<sup>3</sup>/ 4 x 0,75m<sup>3</sup>

Features: Fuel pump delivery rate 130-185L/min

Transmission: Dual speed range hydrostatic drive with hydraulic diff-lock



Length	9 760mm	Max. speed	25km/h
Width	2 340mm	Gradient	15°
Height	2 400mm	Steering angle	50°
Turning radius, inner	3 200mm	Operating weight	10 900kg
Turning radius, outer	6 400mm	Capacity	10 000kg
Ground clearance	316mm	Tyres	14.00 x 24

## 5. TRANSVERS S-LIFT

Underground vehicle for inspection and reinforcement work in tunnels

### Features

Lifting platform 4 x 2m; lifting height 4,5m; concrete pump, compressor; crane with 2-ton capacity (optional)

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock



Length	8 560mm	Max. speed	25km/h
Width	2 000mm	Gradient	15°
Height	2 650mm	Steering angle	50°
Turning radius, inner	2 900mm	Operating weight	15 500kg
Turning radius, outer	5 600mm	Mixer's capacity	4 500kg
Ground clearance	316mm	Tyres	12.00 x 20

## 6. TRANSVERS EXPLOSIVES

Fuser primer and explosives transporter

### Features

Two safes for fuser primer; easily removable folding cover on top of body (fire resistant material)

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock



Length	8 259mm	Max. speed	8 259mm
Width	2 000mm	Gradient	2 000mm
Height	2 292mm	Steering angle	2 292mm
Turning radius, inner	3 150mm	Operating weight	3 150mm
Turning radius, outer	6 000mm	Mixer's capacity	6 000mm
Ground clearance	316mm	Tyres	316mm



## 7. TRANSVERS EXPLOSIVES & PERSONNEL

Personnel, fuser primer and explosives transporter

### Features

Closed type cabin with four passenger seats with heater and fresh air supply; two safes for fuser primer; easily removable folding cover on top of the body (fire resistant material)

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock

Length	8 259mm	Max. speed	25km/h
Width	2 000mm	Gradient	15°
Height	2 292mm	Steering angle	50°
Turning radius, inner	3 150mm	Operating weight	10 000kg
Turning radius, outer	6 000mm	Capacity	6 000kg
Ground clearance	316mm	Tyres	12.00 x 20



## 8. TRANSVERS PT-16

Mining bus for comfortable and safe transportation of personnel

### Features

Vehicle body on rear sub frame for carrying 16 passengers (12 or 20 seats optional); inner cabin dimension 3 520 x 200 x 1 480mm

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock

Length	7 966mm	Max. speed	25km/h
Width	2 200mm	Gradient	15°
Height	2 440mm	Steering angle	50°
Turning radius, inner	2 900mm	Operating weight	16 500kg
Turning radius, outer	5 650mm	Mixer's capacity	7 000kg
Ground clearance	316mm	Tyres	12.00 x 20



## 9. TRANSVERS VAC

Vehicle is designed for collection of dry and wet spillage

### Features

Remote control for all vehicle functions; vacuum unit power 180kW; throughput 87m<sup>3</sup>

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock

Length	8 586mm	Max. speed	25km/h
Width	2 000mm	Gradient	16°
Height	2 700mm	Steering angle	50°
Max height during unloading of hopper	3 569mm	Capacity hopper	3,5m <sup>3</sup>
Turning radius, inner	2 900mm	Operating weight	11 000kg
Turning radius, outer	5 600mm	Mixer's capacity	12 000kg
Ground clearance	316mm	Tyres	12.00 x 20

## 10. TRANSVERS DUAL LIFT/DUAL LIFT LONG

Vehicle with crane for transporting materials in underground mines

### Features

Crane lifting capacity 2 ton/ 5,8 ton with outriggers; crane span – 10m; winch (optional)

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock

Length	8 040mm (9 958*)	Max. speed	25km/h
Width	2 000mm	Gradient	15°
Height	2 300mm	Steering angle	50°
Turning radius, inner	3 700mm	Operating weight	10 200kg
Turning radius, outer	6 500mm	Capacity	8 000kg
Ground clearance	316mm	Tyres	12.00 x 20

\* Option: TransVers Dual Lift Long



## 11. TRANSVERS HANDLER 4WD 4WS

Transporter with crane for auxiliary work

### Features

Independent turning of front and rear wheels; counter-steering of front and rear wheels; crab wheels; cargo platform 4,7 x 2m, floor level 750mm, crane 7,3 ton

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock

Length	10 050mm	Max. speed	12km/h
Width	2 000mm	Gradient	14°
Height	2 700mm	Steering angle	16°
Turning radius, inner	3 740mm	Break-off angle	7°
Turning radius, outer	7 465mm	Operating weight	13 000kg
Ground clearance	415mm	Mixer's capacity	7 000kg
Length	5 736mm	Tyres	12.00 x 20



## 12. TRANSVERS DUAL LIFT MOBISHOP

Underground personnel, cargo and tools transporter with crane

### Features

Crane lifting capacity of 2 tons with outriggers; 4-seat passenger capacity (optional 8 seats)

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock

Length	8 637mm	Max. speed	25km/h
Width	2 177mm	Gradient	18°
Height	2 417mm	Steering angle	1 646mm
Turning radius, inner	3 300mm	Operating weight	13 520kg
Turning radius, outer	6 200mm	Mixer's capacity	8 000kg
Ground clearance	316mm	Tyres	12.00 x 20





### 13. TRANSVERS TRIDENT D8T

Underground diesel locomotive

**Options:** Welding machine; compressor; 1 or 2 cabins

**Transmission:** Dual speed range hydrostatic drive

Length	5 550mm	Railway incline	0.005
Width	1 430mm	Max drive speed (forward and reverse)	15km/h
Height	1 555mm	Weight	8 000kg
Wheel base	900mm	Full train weight	64 000kg
Track gauge	900mm	Max traction force	20kN
Ground clearance	150mm	Max braking force	20kN
Clearance between frame and railhead	140mm	Wheel tread diameter	610mm
Railway curve radius	15m	Wheel tread width	100mm



### 14. HENCON MAVERICK

Vehicle intended for comfortable and safe transportation of linear engineering staff

**Features:**

- Five-man capacity cabin
- 1 500kg payload capacity
- Air-cooled diesel engine
- Power-shift transmission
- Differential type axles

Length	5 080mm	Max. speed	40km/h
Width	2 080mm	Ground clearance	285mm
Height	2 120mm	Capacity	21 170kg
Turning radius, inner	4 150mm	Weight loaded max.	6 000kg
Turning radius, outer	7 200mm	Tyres	12.50-37



### 15. TRANSVERS DUMPER

**Transmission**

Dual speed range hydrostatic drive with hydraulic diff-lock

Capacity	20 000kg
Length x Width x Height, mm	9 286 x 2 200 x 2 500
Operating weight	25 000kg
Clearance	380mm
Turning radius outer / inner	6 900/3 100mm



## 16. TRANSVERS MULTIRAIL CLEANER

Designed to clean excavation debris from ore fines, packing material and strip areas between and on the sides of railways

### Features

Can operate in relative high humidity (75-100%) and ambient temperatures from -15 to +35°C; 3 types of buckets with a capacity of 0.06 m<sup>3</sup> min; articulated boom

### Transmission

Hydraulic pump with variable displacement transfers power from the engine to the hydraulic motors mounted on the axle reducers



<b>Length</b>	7 160mm	<b>Track gauge</b>	750mm
<b>Width</b>	1 630mm (1 425mm w/o mirror)	<b>Railway curve radius</b>	18m
<b>Height</b>	1 700mm	<b>Railway incline</b>	0,005
<b>Wheel tread diameter</b>	680mm	<b>Weight</b>	11 800kg
<b>Wheel tread width (to the flange)</b>	140mm	<b>Engine</b>	Diesel Deutz TD2012 Max power @
<b>Ground clearance</b>	220mm	<b>Max. power output</b>	2500 rpm – 66 kW
<b>Clearance between frame and railhead</b>	220mm	<b>Fuel capacity</b>	110L
<b>Wheel base</b>	1 500mm	<b>Max. speed</b>	12km/h

## 17. TRANSVERS CHARGER EF

Emulsion charger with robotic arm

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock

<b>Length</b>	10 400mm	<b>Max. speed</b>	25 km/h
<b>Width</b>	2 000mm	<b>Gradient</b>	15°
<b>Height</b>	2 600mm	<b>Steering angle</b>	50°
<b>Turning radius, inner</b>	3 350mm	<b>Break-off angle</b>	12 000 kg
<b>Turning radius, outer</b>	6 400mm	<b>Operating weight</b>	4 500 kg
<b>Ground clearance</b>	390mm	<b>Mixer's capacity</b>	12.00 x 20
<b>Boom reach</b>	From -3 to +7,5m		
<b>Length x Width x Height, mm</b>	11 100 x 2 000 x 2 700		
<b>Operating weight</b>	11 000kg		
<b>Clearance</b>	390mm		
<b>Turning radius outer / inner</b>	5 400/ 2 700mm		



## 18. TRANSVERS CHARGER F LIFTER

Lifting machine for high-altitude work

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock

<b>Length</b>	8 637mm	<b>Max. speed</b>	25km/h
<b>Width</b>	2 177mm	<b>Gradient</b>	18°
<b>Height</b>	2 417mm	<b>Steering angle</b>	1 646mm
<b>Turning radius, inner</b>	3 300mm	<b>Operating weight</b>	13 520kg
<b>Turning radius, outer</b>	6 200mm	<b>Mixer's capacity</b>	8 000kg
<b>Ground clearance</b>	316mm	<b>Tyres</b>	12.00 x 20





## 19. TRANSVERS CHARGER ANFO

Lifting machine for high-altitude work, with charging machine for prilled explosives (ANFO type)

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock

Length	8 259mm	Max. speed	25km/h
Width	2 000mm	Gradient	15°
Height	2 292mm	Steering angle	50°
Turning radius, inner	3 150mm	Operating weight	10 000kg
Turning radius, outer	6 000mm	Capacity	6 000kg
Ground clearance	316mm	Tyres	12.00 x 20
Max. speed	25 km/h	Boom swing	±30°



## 20. TRANSVERS CHARGER EMULSION

Lifting machine for high-altitude work, with a platform for the installation of a charging machine for emulsion type explosives

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock

Length	9 600mm	Max. speed	15°
Width	2 000mm	Gradient	50°
Height	2 550mm	Steering angle	15 700kg
Turning radius, inner	3 100mm	Operating weight	12.00 x 20
Turning radius, outer	6 000mm	Capacity	4 500mm
Ground clearance	316mm	Tyres	300kg
Max. speed	25km/h	Boom swing	±55°



## 21. TRANSVERS TH

Mobile underground tyre fitting vehicle

### Transmission

Dual speed range hydrostatic drive with hydraulic diff-lock

Boom lift height	3 616mm
Lifting capacity	3 000kg
Rotation angle of the boom	25°
Rotation angle of the device	390mm
The size of the served tyres	18.00-25 – 27.00-49
Outriggers	+

## 22. TRANSVERS SCALER RB 1

Vehicle for breaking large pieces of rock and rubble; type and model of the breaker built according to the client's specification



Length	12 950mm	Max. speed	25km/h
Width	2 400mm	Gradient	15°
Height	2 400mm	Steering angle	50°
Turning radius, inner	2 800mm	Operating weight	4 WD
Turning radius, outer	6 000mm	Capacity	From -2 to +2.3 m
Ground clearance	300mm	Tyres	17.5 x 25

## 23. TRANSVERS SCALER

Machine for mechanised scaling of hanging walls, pits and faces in underground mines and tunnels



Length	12 700mm	Max. speed	25km/h
Width	2 620mm	Gradient	15°
Height	2 400mm	Steering angle	50°
Turning radius, inner	3 300mm	Operating weight	-750mm
Turning radius, outer	7 000mm	Mixer's capacity	8 780mm
Ground clearance	420mm	Tyres	17,5 x 25

## 24. HENCON SHOTCRETE VEHICLE

Underground concrete spraying machine

### Features

- The cabin has a 15° tilt mechanism for optimal visibility of the working area
- In normal mode, 80% of the volume of concrete spraying is performed by the operator from the cabin, and 20% with the remote control
- Cement pump
- Air compressor
- Reservoir with divider and vibrator
- 1000L water tank



*The Hencon Group sets new standards in the market in engineering, manufacturing and servicing of reliable special and custom made mobile equipment for the aluminium industry, mining industry and forestry industry.*

## 25. SLAGPOT TRANSPORTER AND TILTING VEHICLE

Vehicle is designed to pick up, transport and tilt pots with slag. The configuration is an articulated frame with cabin and power pack on the tractor and pick-up and tilting frame on the trailer.



Length	8 400mm	Max. speed	15km/h
Width	4 350mm	Gradient	4%
Height tractor	4 050mm	Weight empty	21 170kg
Height trailer	2 800mm	Weight loaded max.	45 000kg
Turning radius outside	6 300mm	Full pot weight	23 000kg
Wheelbase	4 948mm	Tyres front	14.00x24
Ground clearance	230mm	Tyres rear	18.00x25



SLAGPOT TRANSPORTER AND TILTING VEHICLE

UNDERGROUND VACUUM INSTALLATIONS DRAINING PITS CLEAN-UP



## 26. UNDERGROUND VACUUM INSTALLATIONS DRAINING PITS CLEAN-UP

Hencon has developed a diesel vacuum rail mine design (SDVR) system for the cleaning of drainage grooves. Its performance is at least four times better than the most modern excavator-type shovels typically used in these operations.

The system includes: locomotive with a manipulator, vacuum cars (up to five), cyclone filter and vacuum unit.

### Technical parameters of SVDR

Length	4 495mm	Filtration system	IVC system
Width	1 350mm	Filter surface area	24m <sup>3</sup>
Height	1 650mm	Filter material	Polyether needled membrane
Engine	Deutz BF6L 914C, 141kW	Filtration efficiency	Particles down to 0.3 micron
Vacuum pump	Roots type	Vacuum hose diameter	150mm
Air consumption max.	4 800m <sup>3</sup> /hour	In-vehicle network	24V
Maximum depression	-90kPA (sea level)	Operating weight	7 200kg
Fuel tank capacity	200L	Transported material	Friable material and effluent



Underground vacuum installations, in combination with self-propelled mining vehicles, solve many of the problems encountered by other types of equipment.

For example, collecting and removing spills of transport conveyors with unloading of the collected material to the conveyor without stopping the process.

The vacuum method is very effective in cleaning the draining pits and shaft bottom spillages of vertical shafts. For these purposes, stationary vacuum bins with unloading in standard cars are installed near the draining pits. The bins are connected to the vacuum line of the vacuum railing machine and to the portable nozzles with flexible hoses for collecting material.

### Technical parameters of vacuum bin

Length x Width x Height, mm	3 814 x 2 717 x 2 851	Total weight (net)	4 500kg
Cyclone	880mm diameter	Vacuum nipple	For 150mm hosepipe with quick-release connection
Cyclone version	Integrated to bin's body, armoured in places of max. abrasion injury	Bin capacity	4m <sup>3</sup>
Feeding	Vibrator for materials grading	Unloading of bin	2 pneumatic gate valves and 2 hand gate valves
Ease of unloading	Ease of unloading	Bin supports	Vibration-damping springs
Transportation to the place of installation	Bin is divided into several separate parts to ensure delivery to installation and assembly site	Energy carrier	Vacuum hopper operates from a 24V network of the vacuum unit, connected to vacuum line and air compressor
Pneumatic equipment	Fluid pressure cylinder of gate valves and sliding valve	Electrics	Control panel, hermetic/ bin fill level sensor



## 27. LOW PROFILE CASSETTE CARRIER



The vehicle's maximum incline ability is 15° (26%)

Technical parameters

Changeable cassettes		
1 Concrete mixer	2 Scissor lift	3 Fuel tank
4 Fuel and grease transporter	5 Personnel transporter	6 Explosive transporter
7 Cargo transporter	8 Cargo transporter with crane	9 Water cistern
10 Mobile workshop		

Length	8 655mm	Max. speed	25km/h (adjustable)
Width	2 595mm	Articulation angle	50°
Height to top of cabin	1 550mm	Oscillation tilt angle	10°
Height to top of mixer drum	1 540mm	Approach angle	12°
Turning radius, inner	3 874mm	Ramp angle	17°
Turning radius, outer	7 200mm	Departure angle	13°
Ground clearance Below axles (diff)	280mm 233mm	Tyres	9.00 x 20 heavy duty mine application tyres
Wheel track	1 650 /2 300mm	Operating weight	16 000kg
Fuel tank capacity	240L	Carry capacity	6 tons
Engine	Deutz TCD 2013 L04 2V EC Step III and Tier 3 126 KW	Drive axle type	Kessler D71 with Diff Lock
Hydraulic Pump Drive Gear	Brevini BZ3-340	Hydraulic Drive	Linde HPV 210 Travel Pump and Travel Motor
Drive System	Hydrostatic		

## 28. HENCON VOLT



An increase in the scale of underground mining and the inevitable deepening of mining activity necessitates sufficient oxygen supply, which entails a significant increase in the cost of mining and capital works.

**One solution is the transition of self-propelled vehicles to electric traction.**

Hencon has developed auxiliary self-propelled vehicles on an electric drive, powered by on-board batteries. Some functions are still performed with the help of hydraulic actuators, which are driven by hydraulic pumps with electric drive.

**The battery pack** (with a maximum capacity of 150kW) is installed as a replaceable cassette on the front half-frame of the machine in a sealed compartment that protects the battery from the corrosive effects of dust and the mine atmosphere. Battery cell temperature is monitored inside the cassette.

**The chemical composition** of the battery provides maximum safety and high performance, allowing flexibility when recharging and charging at a favourable opportunity, in the absence of a memory effect. The system is equipped with all internal protection devices necessary for efficient and safe operations. Simple and fast charging is possible at any time without compromising the battery life.

**Battery charger** The battery pack can be changed, but it will also allow for fast charging when opportunity arises. The batteries can be charged manually whenever the machine is not in use by connecting the cable from the charger to the machine. Charging stops when the battery has reached full capacity.

The maximum charging capacity depends on the capacity of the battery pack. The required voltage for connecting the charger is 400-415V AC 3-phase 50Hz. Fast-charging is possible at any time without compromising battery life. During fast charging, the battery can be charged completely or in separate short intervals:

- Full charge in 2 hours (using a special charger)
- Partial charging and discharging is allowed
- No memory effect
- Maintenance-free

The battery status can be easily monitored through the built-in diagnostic system. Integration capabilities exist with the automatic 3G monitoring system on the Hencon portal.

- Long service life of over 3 000 cycles
- Operating temperature range (-10°C +45°C)
- Monitoring each element using the battery management system protects the battery pack from overcharging, deep discharge, as well as operation at excessively low or high temperatures.

A closed-cycle cooling system is installed inside the battery compartment to maintain an optimal temperature. By taking temperature readings with the battery management system, the cooling system is controlled so that cooling occurs only when necessary to extend the battery life.

**Power electronics**

Electric motor controllers ensure heavy-duty operation with shock and vibration protection. These are installed on heat-absorbing radiators and cooled together with the battery pack. DC/DC converters are installed to power systems with a voltage of 24 volts.

Power electronics (i.e. components operating under voltage over 24VDC) are installed in a separate electrical cabinet, which clearly distinguishes it from 24-volt systems. Motor voltage 400 VAC Motor protection class IP67K.



## SALES GEOGRAPHY



### Hencon Mining BV

De Stenenmaat 15  
7071 ED Uift  
The Netherlands

### Hencon Mining SA

Unit A2 1510 Zeiss Road Laserpark  
Honeydew Johannesburg  
South Africa, 2170

[info@henconmining.co.za](mailto:info@henconmining.co.za) | [www.henconmining.com](http://www.henconmining.com)